

REMARKS

Applicant respectfully requests re-consideration of the application in view of the arguments presented below.

Summary of Office Action

Claims 1-33 are pending.

Claims 1, 17 were rejected under 35 U.S.C. § 102 as being anticipated by U.S. Patent Publication No. 19720030215,944 of Simon. ("Simon").

Claims 2-16, 18-33 were indicated as being allowable if rewritten.

Summary of Amendments

Claims 1, 10, 17, 24, 30, and 33 have been amended. Support for the amendments to claims 1 and 17 can be found in claims 10 and 24 as originally filed, for example. Support for the amendments to claims 10 and 24 can be found in Figures 5, 6, and 10, for example. Claims 30 and 33 were amended to correct a dependency. Applicant submits that the amendments do not introduce new matter.

Claims 34-50 have been added. Applicant submits that support for new claims 34-50, for example, can be found in Figures 6, 8, 9, 10, and 12 for example. Applicant submits that new claims 34-50 do not add new matter.

Response to 35 U.S.C. § 102 rejections

Claims 1 and 17 were rejected as being anticipated by Simon. Claims 1 and 17 have been amended. Applicant respectfully submits that Simon *does not teach or suggest methods or apparatus for optical communications including a substantially non-cylindrical optical path for carrying optical communications with an electrically conductive cladding disposed along the optical path.* (see, also

Examiner's comments at page 3 of 04/05/2005 Office Action regarding Allowable Subject Matter).

To the contrary, Simon discloses coaxial-type arrangements of optical core material surrounding electrical conductors or electrical conductors surrounding optical core material (see, e.g., Simon, Figs. 1, 2, 3A, 3B, 4, 5A-5E). In each case, the optical path is cylindrical. *Thus Simon does not teach or suggest methods or apparatus for optical communications including a substantially non-cylindrical optical path for carrying optical communications.*

In contrast, amended claims 1 and 17 include the language:

1. A method of forming an optical communication path, comprising:
forming a substantially non-cylindrical optical path for carrying optical communications; and
forming an electrically conductive cladding along the optical path for carrying at least one of electrical power, control, and data along the optical path.

(Claim 1, as amended)(*emphasis added*)

17. An optical communication apparatus comprising:
a substantially non-cylindrical optical path for carrying optical communications; and
an electrically conductive cladding disposed along the optical path for carrying at least one of electrical power, control, and data along the optical path.

(Claim 17, as amended)(*emphasis added*)

Thus applicant submits amended claims 1 and 17 are not anticipated by Simon. Given that claims 2-16 and 18-33, as amended, depend from amended claims 1 and 17, respectively, applicant submits that claims 2-16 and 18-33 are likewise not anticipated by Simon.

Although no rejections have been asserted against new claims 34-50, applicant respectfully submits claims 34-50 are likewise not anticipated by Simon.

With respect to claims 34-42, applicant respectfully submits that Simon *does not teach or suggest optical communications apparatus including an optical path for carrying optical communications with an electrically conductive cladding disposed along the optical path with at least a portion of the optical path formed within a planar layer.* (see, also Examiner's comments at page 3 of 04/05/2005 Office Action regarding Allowable Subject Matter).

In contrast, new claim 34 includes the language:

34. An optical communication apparatus comprising:
an optical path for carrying optical communications, *at least a portion of the optical path formed within a channel of a planar layer*; and
an electrically conductive cladding disposed along the optical path for carrying at least one of electrical power, control, and data along the optical path.

(New claim 34)(*emphasis added*)

Thus applicant submits claim 34 is not anticipated by Simon. Given that claims 35-42 depend from claim 34, applicant submits claims 35-42 are likewise not anticipated by Simon.

With respect to claims 43-50, Simon discloses co-axial (Figs. 1-3) or multi-axial (Fig. 4) type arrangements where either a) cylindrical conductor(s) are collectively surrounded by cylindrical optical core(s), or b) cylindrical optical core(s) are collectively surrounded by one or more cylindrical conductor(s). (see, e.g., Simon, pars. 17, 23, 29, 38, 44; Figs. 1-4. Note also steps 502, 506 of Fig. 5A; steps 502, 534 of Fig. 5C; steps 502, 544 of Fig. 5D; and steps 554, 556 of Fig E which are directed to "surrounding" one of the conductor or the optical core with the other of the conductor or the optical core to form the optical and electrical transmission line).

Simon, does not teach or suggest a conductive cladding (non-cylindrical or otherwise) that is disposed along and adjacent to a face of the optical path without surrounding the optical path.

In contrast, new claim 43 includes the language:

43. An optical communication apparatus comprising:
an optical path for carrying optical communications; and
an electrically conductive cladding disposed along and adjacent to a face of the optical path without surrounding the optical path, the electrically conductive cladding for carrying at least one of electrical power, control, and data along the optical path.

(New claim 43)(*emphasis added*)

Thus applicant submits claim 43 is not anticipated by Simon. Given that claims 44-50 depend from claim 43, applicant submits claims 44-50 are likewise not anticipated by Simon.

Applicant respectfully submits that the rejections under 35 U.S.C. § 102 have been overcome and that none of claims 1-50 is anticipated by Simon.

Conclusion

In view of the amendments and arguments presented above, applicant respectfully submits the applicable rejections and objections have been overcome. Accordingly, claims 1-33 as amended and new claims 34-50 should be found to be in condition for allowance.

If there are any issues that can be resolved by telephone conference, the Examiner is respectfully requested to contact the undersigned at (512) 858-9910.

Respectfully submitted,

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